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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,535	12/20/2005	Yuanhao Sun	INT.P020	9877
45512 7590 06/22/2010 LAWRENCE CHO ATTORNEY AT LAW C/O CPA GLOBAL P.O. BOX 52050 MINNEAPOLIS, MN 55402				
EXAMINER				
ZHE, MENG YAO				
ART UNIT		PAPER NUMBER		
2195				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,535

**Applicant(s)**

SUN ET AL.

**Examiner**

MENG YAO ZHE

**Art Unit**

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 11/17/08 12/20/05

**DETAILED ACTION**

1. Claims 1-22 are presented for examination.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-8, 16-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
3. As per claim 1, it recites a "system"; however, it appears that the system would reasonably be interpreted by one of ordinary skill in the art as software, per se, failing to be tangibly embodied or include any recited hardware as part of the system. Software alone is directed to a non-statutory subject matter. Applicant is advised to amend the claims to include a hardware (i.e. processor and memory) to overcome the 101 rejection.

Claims 2-8 are dependent on claim 16 and do not overcome the deficiency of claim 16. Therefore they are rejected for the same rational.

4. Claim 16 is a computer program product claim that appearing to be comprised of software alone without claiming associated computer hardware required for storing and execution the program product. Applicant is suggested to amend the preamble of the

claim to include "computer program product stored in a memory and executed by a processor" to overcome the outstanding 101 rejection.

Claims 17-22 are dependent on claim 16 and do not overcome the deficiency of claim 16. Therefore they are rejected for the same rational.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pizi et al., Patent No. 5,878,258 (hereafter Pizi) in view of Cheng, Patent No. 5,694,581 (hereafter Cheng).

6. As per claims 1-2, 5-6, 9, 16, Pizi teaches a method of synchronizing resource accesses in a computer system, comprising:

associating an access indicator with each of a plurality of resources (Column 10, lines 50-51);

determining what current value an access indicator of a resource has when a routine wants to access that resource, wherein the value of the access indicator indicates how many routines are allowed to access the resource concurrently; and changing the value of the access indicator by a predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined level (Column 2, lines 27-30; Column 10, lines 47-60: it is obvious that the indicator changes count value when a routine accesses the resource).

Pizi does not specifically teach that the resource access happens in a BIOS and that the access is concurrent.

However, Pizi does teach that the applications running in his system are running concurrently and since such application often has the need to access the resource concurrently, in that event, one would result in a situation where Pizi's applications are accessing the resources concurrently. Furthermore, Cheng teaches a situation where concurrent resource accesses are performed in a BIOS environment for the purpose of easier information retrieval (abstract).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Pizi with the specifics of concurrent resource accesses in a BIOS environment, as taught by Cheng, because it allows for an easier information retrieval.

7. As per claims 10, 17, Pizi does not specifically teach wherein the access indicator of each of the resources is assigned with an initial value.

It would have been obvious to one having ordinary skill in the art at the initial value of Pizi's counter is 0 in order to track the number of application accessing the resource correctly.

8. As per claims 11, 18, Pizi does not specifically teach not changing the value of the access indicator and not granting access to the resource to the requesting routine if the value of the access indicator is determined to be already at the predetermined level.

However, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention that the purpose of Pizi to set the maximum number of allowable accesses is to limit how many applications may access the resource and to prevent them from accessing the resource in the event that the limit has been reached (Column 10, lines 53-60).

9. As per claims 3, 12, 19, Pizi teaches wherein the changing is performed by decreasing the value of the access indicator by the predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined lowest level, wherein the access to the resource by the requesting routine does not affect operation of any other routine that does not require access to this resource (Column 10, lines 50-60).

10. As per claims 13, 20, Pizi teaches wherein the predetermined lowest level is zero and the predetermined amount is one (Column 10, lines 58-60).

11. As per claims 14, 21, Pizi teaches increasing the value of the access indicator by the predetermined amount (Column 10, lines 50-55).

However, Pizi does not specifically teach that the above is done after the routine has accessed the resource.

However, incrementing the counter after the performance of an action is commonly practiced in the field of task management for the purpose of accurately reporting the states or status of the system. It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Pizi with updating the counter only after the access action has been performed because it allows for accurate information about the system to be recorded.

12. As per claim 4, Pizi does not specifically teach wherein if the value of the access indicator of the one of the resources is equal to zero, that one of the resources is not accessible by any other routine.

However, Pizi does teach that the value that indicates how many applications may access the resource may be defined by the user and since using 0 to mean that no one is allowed to access is commonly practiced in the field of access control, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention that the users of Pizi's system can very well set the value to 0 to

indicate that the resources is not allowed to be accessed/shared amongst applications in the event that the resource is a private resource.

As per claim 7, Pizi does not specifically teach wherein the access indicator and the synchronization module allow anyone of the routines that does not require resource access to be running concurrently with the resource accesses.

However, since Pizi does teach that routines may run concurrently (Column 7, lines 4-12), in the specific event where one routine does not need resources and another is accessing resources, it would have been obvious to one having ordinary skill in the art at the Pizi's system would allow the two routines to run concurrently since there is no control system in Pizi's invention to block this from happening.

13. As per claims 8, 15, 22, Pizi in view of Cheng does not specifically teach wherein the BIOS is an EFI (Extensible Firmware Interface) based BIOS.

However since EFI has been used at the time of the applicant's invention to provide better boot/runtime services, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have the BIOS be EFI, because it allows for better boot/runtime services to be provided.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-



6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

/Mengyao Zhe/